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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/995,897	11/28/2001	Pierre D. Mourad	12500.2001U	1505

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EXAMINER

IMAM, ALI M

ART UNIT	PAPER NUMBER
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3737

DATE MAILED: 03/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/995,897

Applicant(s)

MOURAD ET AL.

Examiner

Ali Imam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 2/6/03 (restriction election).
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-21 and 35-61 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 and 35-61 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3, 6, 7.
- ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

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## DETAILED ACTION

### *Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-21, <sup>35-61,</sup> drawn to a method of inducing a tissue displacement by applying an ultrasound pulse, classified in class 600, subclass 442.
  - II. Claims 22-34, drawn to a method for assessing a physiological property of a target tissue, classified in class 73, subclass 613.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such as ultrasound transducer. See MPEP § 806.05(d).
3. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.
4. A telephone was made to the applicant A telephone call was made to Susan J. Friedman, Reg. No. 38,457 on January 24, 2003 to request an oral election to the above restriction requirement, but did not result in an election being made.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

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5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Response to Second Preliminary Amendment***

6. Applicant's election without traverse of Group I (claims 1-21 and 35-49) in Paper No. 9 is acknowledged and all necessary changes to the claims have been inserted.

***Status of the Claims***

7. Claims 1-21 and 35-61 are currently pending.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claim rejected under 35 U.S.C. 102(b) as being anticipated by Walker et al. (US 6,039,691 of record).

In regard to claims 1-5, 14, 15, 20, 21, 35, 39-42, 45-46, 50-57, Walker et al. (hereinafter "Walker") teaches in Fig. 1, ~~(reproduced below)~~ a system for assessing a physiological parameter of a target tissue comprising an acoustic source and detector (16) being operably connected to a power source (14), the power source being operably connected to a function generator (12), and

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the function generator being operably connected to a controller (inside the computer (22)) inherently comprising the necessary structures for data acquisition, storage and analysis, processing the acquired data and relating the acquired acoustic data with at least one physiological tissue condition (col. 2, lines 22-40), wherein the controller being operably connected to a display device (21) (col. 3, line 45) for displaying information relating to at least one physiological tissue condition. Walker further teaches that the acoustic source is an ultrasound transducer (col. 3, line 66). Walker continues to teach that the transducer is operative to Doppler mode (col. 3, line 52)

In regard to the method claims, the reference meets all the claimed structures as set forth above. The method concerning the steps of inducing a tissue displacement by applying an ultrasound energy, noninvasively acquiring data, applying plurality of different pulses, inducing oscillation of the target tissue, etc. are inherently met by the disclosure.

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 6-13, 16-19, 36-38, 43-44, 47-49, and 58-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker et al. (US 6,039,691 of record) in view of Madsen et al. (US 6,086,533 of record) or Mick (US 5,074,310 of record).

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Walker teaches all the limitation of the claimed subject matter except for mentioning specifically that the ultrasound transducer is used for measuring intracranial pressure.

Madsen teaches a pressure transducer (19) to measure noninvasively the intracranial pressure of a patient (col. 2, line 32).

Alternatively, Mick also teaches a transcranial Doppler transducer (10) for noninvasively measuring the intracranial pressure of a patient (col. 4, lines 26-29).

Madsen or Mick is evidence that one of ordinary workers in the art of ultrasound pressure measurement system would recognize the benefit of using transcranial Doppler transducer.

Therefore, it would have been obvious to an ordinary skill in the art at the time the invention was made to modify Walker's ultrasound system such that it includes a transcranial Doppler transducer so that intracranial pressure of a patient can be measured noninvasively.

The specific limitations of the CNS tissue, intrinsic tissue displacement, plural transducer, etc. are considered to be a matter of user's discretion in order to meet intended purposes.

### ***Conclusion***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ali Imam whose telephone number is 703-305-0028. The examiner can normally be reached on Mon. - Th., 8:00- 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marvin Lateef can be reached on 703-308-3256. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-0758 for regular communications and 703-308-0758 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.



Ali Imam  
Examiner  
Art Unit 3737

AMI  
March 10, 2003